

ENC 4989
COPY, OF 2

March 27, 1956

George:

I am enclosing a copy of a letter which I received from [redacted] requesting additional shutter assemblies. As you know, the shutters have always been the weakest link in large aperture airforce cameras. The shutters which we picked to use on this project were the best available, and yet have had a rather dismal record of malfunctions in the airforce. Considerable rework has been undertaken by Hycon to improve the reliability, and I believe that this has been accomplished for we have been using the shutters consistently at 1/250 sec. with only few malfunctions, but experience has shown that the wear on these shutters has been much greater than anticipated.

25X1

Therefore, in order to attempt to improve their reliability during the larger number of operations now contemplated, we urgently request an additional supply of these shutters. A letter making this request has been sent to [redacted] and [redacted], but this letter to you will serve the purpose of indicating that after a preliminary study of the problem, I concur in the need for additional shutters. The request involves 10 immediately (original request submitted about the first of March), and 10 by the end of March, with 50 more by the end of April. These shutters require some factory rework and modification, so that you can understand that any effort on your part to expedite their delivery would be greatly appreciated.

25X1

25X1

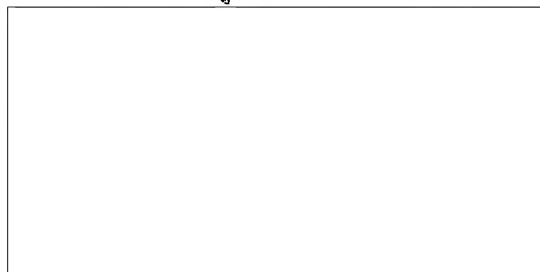
25X1



RMS/dmg

George:
Checked with Fred Walsh & Col Wilson 9 April. Saw copy of letter to Col. Berg dated 6 April requesting this material. 20 to be delivered by 16 April and 50 by 30 April 1956. No record of Rod's original request submitted about 1st of March.

STAT
25X1



Octon. In this

8/15/56

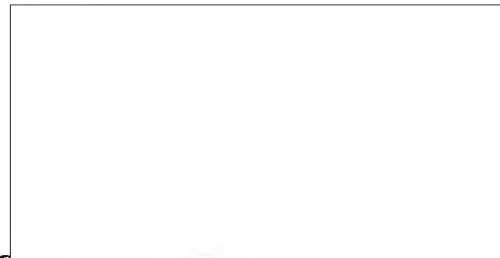
SAPC 4987
COPY , OF 2

*Wanda
Jig in
800
2/29/56*

P R O P O S A L

March 26, 1956
RMS

25X1



CONTAINS SENSITIVE
COMPARTMENTED INFORMATION

astron/mosles/prop

Items 43 through 45 of our contract covered the design, material and manufacture of the mirrors as required for the 120 system and the mirrors for the preceding system. The new 180 system requires not only larger mirrors but more of them, six per system rather than four, because of the additional folding required to fit the larger value into the same space. Additional material for the additional mirrors is required and some additional tooling.

To date we have invoiced as delivered Item 44 which covers the originally required material, all of which will still be used. Therefore, we propose that this item remain unchanged and that the additional material and tooling be covered by an additional item. We have delivered and invoiced six elliptical mirrors at a price of \$2,805 each, which is part of Item 45. The estimated and here quoted cost for the 180 system mirrors is \$52,858 giving a price of \$59,202 for that portion of Item 45. Thus the total target price of Item 45 is \$76,032.

I am pleased to report that the costs to date on Item 43 and the estimate to complete are such as to provide a reduction in the target price of this item by \$6,193.

A comparison of the manufacturing cost, as well as the material and tooling costs, indicate that the six mirrors will cost only 20% more than the four rather than an expected 50%. This is due to the fact that the two most difficult ones dominate the cost picture in both cases, and the two new ones, while large, are less exact in their quality requirements, and thus can be made thin, saving material and cost of manufacture.



STAT

March 26, 1956
RMS/dmg

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Delete Item 43 ✓

Add Item 43-a

Provide engineering services to design and develop the fused quartz mirrors and mounts listed below as described in Projector Division Tech. Spec. No. 14 dated February 23, 1955 \$11,778. ✓

1) 19.5" O.D. C.A Elliptical mirror for system "B" per Dwg No. 155-0003

2) 13.0 O.D.C.A Elliptical mirror 19.4" major axis for system "C" per Dwg No. 155-1010

3) 15.5 O.D.C.A special mirror for System "C" per Dwg. No. 155-1011

4) 6.1" Major Axis Diagonal for system "C" per Dwg. No. 155-1012

5) 10.1" Major Axis Diagonal for System "C" per DWG. No. 155-1013

6) 11.5 x 10.5 mirror for System "C" per Dwg No. 155-1014

7) 12.8 x 12.1 mirror for system "C" per DWG. No. 155-1015

Delivery - (1) - 10/13/55
(2) thru (7) 5/15/56

Item 44 - Retain ✓

Add Item 44-a

Purchase additional material and tooling required to produce the mirrors described in 43-a not available from that material and tooling purchased for Item 44.
. \$10,363. ✓

Delivery - 7/31/56

Item 45 - Delete

Add Item 45-a

Construct, test and deliver the quantities listed below of the fused quartz mirrors and mounts designed under Item 43-a.

1) Six (6) mounts and elliptical mirrors with a 19.50" O.D.C.A. and a finished thickness of 2". @ \$2,805. \$16,830. ✓

Delivery - One (1) 8-22-55 One (1) 12-15-55
 One (1) 9-7-55 One (1) 1-27-56
 One (1) 11-16-55 One (1) 2-24-56

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Item 45-a continued

Bal. forward \$16,830.

2) Six sets of mirrors, one each
155-1010, 155-1011, 155-1012, 155-1013,
155-1014, 155-1015.

@ \$9,867 per set of six

\$59,202. ✓

\$76,032. ✓

Delivery - One (1) set 7-1-56
One (1) set 9-1-56
Two (2) sets 11-1-56
Two (2) sets 12-1-56

$$\begin{array}{r} 20402 \\ 18216 \\ \hline 2186 \end{array}$$